

WHAT IS CLAIMED IS:

1. A communication system comprising:

a wire communication network, said wire communication network including at least one device connected thereto and a wire link; and

a terminal connected to said wire communication network for radio communication,

wherein a baseband signal in a predetermined format is transmitted over said wire link within said wire communication network,

wherein, when said terminal receives the baseband signal from said device via said wire communication network, said terminal modulates a carrier wave using the received baseband signal into a transmission signal without translating the predetermined format of the baseband signal into another format, and

wherein the transmission signal is transmitted from said terminal via radio waves.

2. A communication system as in claim 1,

wherein said wire link is an optical fiber link.

3. A communication system as in claim 1,

wherein said terminal modulates the carrier wave so that a frequency of the transmission signal varies depending on the level of the received baseband signal.

4. A communication system as in claim 1,
wherein said terminal modulates the carrier wave so that an amplitude of the transmission signal varies depending on the level of the received baseband signal.
5. A communication system as in claim 1,
wherein the baseband signal is a digital signal.
6. A communication system as in claim 5,
wherein said terminal is connected to said wire communication network via a router which routes the baseband signal.
7. A communication system as in claim 1,
wherein said wire communication network is an in-vehicle LAN established in a vehicle.
8. A communication system as in claim 7,
wherein the transmission signal is transmitted from said terminal to a RSU installed in a vicinity of a road via radio waves.
9. A communication system as in claim 7,
wherein the transmission signal is transmitted from said terminal to a device in another vehicle via radio waves.
10. A communication system as in claim 7,

wherein the transmission signal is transmitted to a radio device within the vehicle via radio waves.

11. A terminal connected to a wire communication network for radio communication,

wherein said terminal includes at least one of transmitter means and receiver means,

wherein said transmitter means receives a first baseband signal in a predetermined format from said wire communication network, and modulates a carrier wave using the received first baseband signal into a transmission signal without translating the predetermined format of the first baseband signal into another format,

wherein the transmission signal is transmitted via a transmitting antenna,

wherein said receiver means receives a signal via a receiving antenna, and demodulates the received signal into a second baseband signal, and

wherein the second baseband signal is transmitted from said receiver means to said wire communication network without translating a format of the second baseband signal into another format.

12. A terminal as in claim 11,

wherein said wire communication network includes an optical fiber link for transmitting a signal within said wire communication network,

wherein the first baseband signal received by said transmitter is an optical signal, and

wherein the second baseband signal transmitted from said receiver means is an optical signal.

13. A terminal as in claim 12,

wherein said transmitter means includes a light controlled oscillator for generating the carrier wave of a predetermined nominal frequency,

wherein the first baseband signal received by said transmitter means is applied to said light controlled oscillator, and

wherein said light controlled oscillator generates, as the transmission signal, a signal of a frequency shifted from the predetermined nominal frequency according to an intensity of the applied first baseband signal.

14. A terminal as in claim 12,

wherein said transmitter means includes an oscillator for generating the carrier wave of a constant frequency and a variable amplifier,

wherein the first baseband signal received by said transmitter means is applied to said variable amplifier, and

wherein said variable amplifier amplifies the carrier wave generated by said oscillator with a gain variable with an intensity of the applied first basedband signal and outputs a resultant signal as the transmission signal.

15. A terminal as in claim 12,

wherein said transmitter means includes a voltage controlled oscillator for generating the carrier wave of a predetermined nominal frequency and an optical/electrical converter,

wherein the first baseband signal received by said transmitter means is applied to said optical/electrical converter,

wherein said optical/electrical converter generates an electrical signal of a voltage variable with an intensity of the applied first baseband signal, and

wherein said voltage controlled oscillator receives the electrical signal and generates, as the transmission signal, a signal of a frequency shifted from the predetermined nominal frequency according to the voltage level of the received electrical signal.

16. A terminal as in claim 12,

wherein the receiver means includes a demodulator for demodulating the received signal into an electrical baseband signal and an electrical/optical converter, and

wherein said electrical/optical converter receives the electrical baseband signal and generates, as the second baseband signal, an optical signal of an intensity variable with a voltage of the received electrical baseband signal.

17. A terminal as in claim 11,

wherein said wire communication network to which said terminal is connected is an in-vehicle LAN established in a vehicle.

18. A terminal as in claim 17,

wherein said transmitting antenna is arranged on at least one of a front end, a rear end, a right side, and a left side of the vehicle, and

wherein said receiving antenna is arranged on at least one of the front end, the rear end, the right side, and the left side of the vehicle.

19. A method for transmitting a signal in a predetermined format from a wire communication network to a radio device via radio waves, comprising the steps of:

modulating a carrier wave of a radio frequency using the signal into a transmission signal without translating the predetermined format of the signal into another format; and
transmitting the transmission signal to said radio device.

20. A method as in claim 19,

wherein said radio device is a terminal connected to another wire communication network for radio communication.

21. A method as in claim 19,

wherein said radio device is a base station of a wireless

communication network.

22. A method as in claim 19,

wherein said wire communication network includes an optical fiber link for transmitting a signal within said wire communication network, and

wherein the signal in the predetermined format is an optical signal, and the optical signal is used for the modulation of the carrier wave without being converted into an electrical signal at said modulating step.